

CLAIM AMENDMENTS

Sir:

In response to the Office Action of July 17, 2006, please amend the claims of the above-identified application as follows:

1. (Currently Amended) A process for recycling protein waste comprising the steps of:
 - a) preparing an enzymatic digest medium comprising an enzyme and a fluid waste, said fluid waste including protein, fat, and water and adjusting a pH level of said enzymatic digest medium to a pH between about 4 and about 6;
 - b) grinding protein waste and mixing said waste with said enzymatic digest medium to produce a protein solubles mixture comprising ~~protein fat, and water~~ a mixture of said ground protein waste and said enzymatic digest medium;
 - c) maintaining said protein solubles mixture at a temperature optimal for enzymatic digestion;
 - d) periodically recirculating said protein solubles mixture to insure complete enzymatic digestion;
 - e) emulsifying said protein solubles mixture to disperse said protein, said fat, and said water to produce emulsified proteins;
 - f) allowing separation of said water into a water layer, removing said water layer, and recycling said water layer in preparing said enzymatic digest;
 - g) mixing said emulsified proteins with a carrier;

- i) evenly drying said plurality of pellet-like pieces;
- j) sizing said plurality of pellet-like pieces to uniform size and retaining said uniformly sized pellet-like pieces.

2. (Currently Amended) The process for recycling protein waste as claimed in claim 1, wherein said fluid waste is an inedible egg substance and the step of preparing an enzymatic digest medium comprises mixing at least one enzyme, ~~[[an]]~~ said inedible egg substance, and at least one preservative.

3. (Previously Amended) The process for recycling protein waste as claimed in claim 2, wherein adjusting said pH level comprising adding phosphoric acid or lactic acid.

4. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein said enzymatic digest medium comprises about 2 pounds per ton of at least one preservative, about one and one half pounds per ton of at least one enzyme wherein said at least one enzyme comprises protease and keritinase, and about one thousand nine hundred ninety six pounds per ton of inedible egg substance.

5. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein the step of mixing said protein waste with said enzymatic digest medium comprises recirculating said protein solubles mixture through a chopper pump to insure adequate grinding and thorough mixing with said enzymatic digest medium.

6. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein the step of maintaining said protein solubles mixture at an optimal temperature is carried out by a heating element placed in a housing filled with water and

surrounding a digester tank containing said protein solubles mixture and said optimal temperature is between about 90 degrees and 110 degrees Fahrenheit.

7. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein said carrier further comprises ground wheat midds, ground corn midds, or soybean meal.

8. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein the step of evenly drying said plurality of pellet-like pieces comprises subjecting said pellet-like pieces to at least one heat zone, at least one cool zone, and alternating airflow.

9. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein the step of sizing said plurality of pellet-like pieces is carried out by moving said pieces through a roller mill for uniform sizing and then using a vibrating screen to retain only said pellet-like pieces of uniform size.

10. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein the step of preparing an enzymatic digest medium comprises mixing at least one enzyme, an inedible egg substance, and at least one preservative and adjusting said pH level to between about 4 and 6 by adding phosphoric acid; the step of grinding and mixing said protein waste and said enzymatic digest medium is carried out by a grinder and recirculation through a chopper pump; and the step of maintaining said protein solubles mixture at an optimal temperature comprises using a heating element to provide heat required to maintain temperature between about 90 degrees and 110 degrees Fahrenheit.

11. (Previously Amended) The process for recycling protein waste as claimed in claim 10, wherein the step of drying said plurality of pellet-like pieces comprises heating said pellet-like pieces, cooling said pellet-like pieces, and providing alternating air flow to said pellet-like pieces.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Previously Amended) The process for recycling protein waste as claimed in claim 2, wherein said at least one enzyme comprises protease and keritinase and wherein said acidic solution comprises phosphoric acid or lactic acid.

18. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein said step of evenly drying further comprises providing air flow to said pellet-like pieces.

19. (Previously Amended) The process for recycling protein waste as claimed in claim 1, wherein said step of periodically recirculating said protein solubles mixture comprises recirculation for one hour every twelve hours for three to four days.

20. (Previously amended) The process for recycling protein waste as claimed in claim 1, wherein said carrier comprises a high surface area to volume ratio which absorbs moisture from said emulsified proteins and produces a doughlike mixture.

21. (New) The process for recycling protein waste as claimed in claim 1, wherein said fluid waste is selected from the group consisting of inedible egg products, outdated ice cream, molasses, and milk byproducts.

22. (New) A process for recycling protein waste comprising the steps of:

- a) preparing an enzymatic digest medium comprising an enzyme, an inedible egg substance, at least one preservative, and water and adjusting a pH level of said enzymatic digest medium to a pH between about 4 and about 6;
- b) grinding protein waste and mixing said waste with said enzymatic digest medium to produce a protein solubles mixture comprising said ground protein waste and said enzymatic digest medium;
- c) maintaining said protein solubles mixture at a temperature optimal for enzymatic digestion;
- d) periodically recirculating said protein solubles mixture to insure complete enzymatic digestion;
- e) emulsifying said protein solubles mixture to disperse said protein, said fat, and said water to produce emulsified proteins;
- f) allowing separation of said water into a water layer, removing said water layer, and recycling said water layer in preparing said enzymatic digest;
- g) mixing said emulsified proteins with a carrier;
- h) extruding said doughlike mixture into a plurality of pellet-like pieces;
- i) evenly drying said plurality of pellet-like pieces;
- j) sizing said plurality of pellet-like pieces to uniform size and retaining said uniformly sized pellet-like pieces.

23. (New) The process for recycling protein waste as claimed in claim 22 wherein said enzymatic digest medium comprises about 2 pounds per ton of at least one preservative, about one and one half pounds per ton of at least one enzyme wherein said at least one enzyme comprises protease and keritinase, and about one thousand nine hundred ninety six pounds per ton of inedible egg substance.

24. (New) The process for recycling protein waste as claimed in claim 22 wherein said pH level is adjusted by adding phosphoric acid; the step of grinding and mixing said protein waste and said enzymatic digest medium is carried out by a grinder and recirculation through a chopper pump; and the step of maintaining said protein solubles mixture at an optimal temperature comprises using a heating element to provide heat required to maintain temperature between about 90 degrees and 110 degrees Fahrenheit.

25. (New) The process for recycling protein waste as claimed in claim 24 wherein the step of drying said plurality of pellet-like pieces comprises heating said pellet-like pieces, cooling said pellet-like pieces, and providing alternating air flow to said pellet-like pieces.



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Amendment

Commissioner for Patents

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CERTIFICATE OF MAILING

I hereby certify that this Amendment is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, Mail-Stop Non-Fee, Amendment, P. O. Box 1450, Alexandria, Virginia 22313-1450, D.C., on September 5, 2006, with adequate postage affixed thereto.

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